

# Chapter 13

## Technological Interventions: Examination of Social Exchange as an Antecedent to Academic Achievement in Online Learning

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### ABSTRACT

*This chapter examines online learning practices and related administrative concerns at a small college just outside of New York City where educators constantly seek to meet the evolving needs of learners. The learning environment consists of multiple factors that influence social exchange and academic achievement. Learning and consequently degree completion appears limited in part because there are insufficient avenues for self-expression, social connections, and communication exchange, considered antecedents to academic achievement. In this case study, the institution serves as the research site for identifying impediments to an effective learning environment, assessing current technologies in education, and identifying strategies that educators and administrators may implement as they actively enhance learners' academic engagement and achievement. The study presents an evaluation of the institution, its current practices, obstacles, assessment of risks, and recommendations toward conventions of traditional Learning Content Management Systems (LCMS) and organizational infrastructure.*

### INTRODUCTION: ONLINE LEARNING BY DESIGN

*Through others, we become ourselves. ~Vygotsky*

In contemporary society, Web 2.0 has become a pervasively used tool due to its expansive reach that connects learners from diverse locations, cultures, and learning spaces via an online learning portal.

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The term Web 2.0 describes the second generation of the World Wide Web that enables collaboration, and information sharing, in a more dynamic and organized manner (Solomon & Schrum, 2010). Online learning allows educators to efficiently achieve objectives that can easily take learners beyond formal operations and interactions, as they access virtual resources and formulate connections that can be relatively immeasurable.

The interactivity of online learning is helpful within occupational realms as students; often professionals, rely on this dynamic to interact with stakeholders (Dizik, 2010; Lint, 2013; Vuong, Brown-Welty, & Tracz, 2010), i.e., faculty, peers within various learning contexts, and other college personnel. Through these interactions, learning processes constantly change. Consequently, learners' needs and expectations evolve; therefore educators must design and redesign objectives and instructional delivery methods to meet changing needs within the learning environment. Administrators as well need to be both thoughtful and creative as they design strategies for students to engage with those in the college environment who are able to scaffold them toward success (Lemke, Coughlin, Garcia, Reifsneider, & Baas, 2009; Solomon & Schrum, 2010).

Online learning environments are parallel to work teams in the real world since students, who are professionals in many cases, constantly exchange knowledge and expertise using the virtual classroom (Dizik, 2010; Harlow, 2006; Lint, 2013). The quality and depth of interactional relationships based on attention, mutual interest, support, reduced stress, shared identity and interpersonal comfort is known as social exchange (Lint, 2013; Richardson & Ice, 2010; Ugrin, Odom, & Pearson, 2008). In the online learning space, individual performance, and team success gives rise to collective synergies that further enable learners to exceed their personal potential. When comparing academic goals to relational outcomes, we see that learners are positively influenced by strong social exchanges. For some, exchange within the online

learning environment serves as a mediator, and even antecedent to successful learning.

U.S. Department of Education (2013) data shows that over eighty two thousand students in the State of New York are enrolled exclusively online. For these learners the virtual classroom or LCMS in this case, becomes a workspace or collaborative environment where the dynamics of the workplace are learned, and practiced, in preparation for a career (Brown, Collins, & Duguid, 1989; Merriam & Caffarella, 1999). Therefore while some students are employed at the time that they enroll, and come with some work related experience, many others have the opportunity to learn critical interpersonal skills and communication strategies within the online classroom or learning content management system (LCMS). As such, the learning space becomes a multifaceted academic and career related construct in students' lives. Holistically, interaction among all college constituents serve as antecedent factors that contribute to an effective learning environment (Watkins & Marsick, 1993) that enhances academic success.

In this case study, social exchange (Bandura, 1977; Homans, 1961) and the Zone of Proximal Development-ZDP (Vygotsky, 1978) within the context of social learning (Piaget, 1995) form the conceptual framework for students' experiences using the LCMS. The LCMS is neither flexible, nor versatile as it only provides interaction between teacher and student via simple discussion forums (Rodrigues, Sabino, & Zhou, 2011), and as such, interaction at College X is restrictive. Learners are limited because there are insufficient avenues for self-expression, social connections, or communication exchanges.

A key attribute within an ideal learning environment is that learners should have the opportunity to share knowledge they have gained over time, and from their own professional experiences (Grant & Thornton, 2007; Johnson & Aragon, 2003). However, online teaching is diluted in many instances. This means that few instructors fully understand

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